

REMARKS

Claims 1-90 are pending. By this Amendment, claims 47, 48, 62, 69 and 84 are amended. Claims 47 and 69 are amended so as to be more concise. Claim 48 is amended to correct an obvious typographical informality. Claims 62 and 84 are amended so as to be more consistent with the specification at, for example, page 10, lines 5-12. Applicant submits that the amendments do not narrow the claims.

Applicant notes with appreciation the allowance of claims 1-46, 52-61 and 77-83. Applicant also notes with appreciation the indication of allowable subject matter in claims 50, 63-68, 70-73, 75, 76 and 85-90. Applicant respectfully submits that all pending claims are in condition for allowance for at least the reasons set forth below.

Claims 47-49, 51, 62, 69, 74 and 84 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,315,629 to Jewell et al. This rejection is respectfully traversed.

Jewell et al. does not disclose or suggest "applying an oblique component to telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask" as recited in independent claim 74. Applicant respectfully submits that Jewell et al. is entirely silent with respect to this feature. Independent claim 74 recites a method that is related to the structure of allowed independent claim 52. Thus, Applicant submits that claim 74 should be allowed similar to claim 52.

Applicant respectfully submits that Jewell et al. does not disclose or suggest the illumination adjustment mechanism recited in independent claim 47 or the step of "adjusting an illumination characteristic..." recited in independent claim 69. The present application describes various exempletive structures and steps for adjusting the illumination characteristic. See, for example, page 17, line 19 - page 23, line 8, page 29, line 17 - page 31, line 6, page 39, line 15 - page 40, line 29 and page 47, line 20 - page 48, line 30. Jewell et al. merely discloses that the mirrors of its projection system are designed to substantially cancel

aberration. See, for example, col. 4, lines 19-21, col. 5, lines 35-51 and col. 11, lines 33-48. Jewell et al. does not disclose or suggest any mechanism for, or step of, adjusting an illumination characteristic as recited in independent claims 47 and 69. Accordingly, claims 47 and 69, as well as their dependent claims, are patentable over Jewell et al.

Furthermore, Jewell et al. also does not disclose or suggest the features of claims 48, 49 and 51, which depend from claim 47. Regarding claim 48, Jewell et al. does not disclose or suggest an illumination adjustment mechanism that moves and/or inclines at least one illumination optical component among the plurality of illumination optical components making up an illumination optical system. Regarding claims 49 and 51, Jewell et al. does not disclose or suggest an illumination adjustment mechanism that applies at least one of an illumination distribution component that is inclined along the scanning exposure direction, and an illumination distribution component that is inclined along the direction crossing the scanning exposure direction. Accordingly, these claims are patentable over Jewell et al. for the features recited therein, as well as due to their dependence from allowable claim 47.

Regarding independent claims 62 and 84, Jewell et al. does not disclose or suggest an illumination optical system that has an optical axis that is optically coaxial with the optical axis of the projection system. See, for example, page 10, lines 5-12 of Applicant's specification for the meaning of "optically coaxial." Jewell et al. is only concerned with the structure of the projection system. See, for example, col. 4, lines 9-13, col. 5, lines 30-32, col. 6, lines 52-56, col. 7, lines 37-40 and col. 9, lines 60-63. While Jewell et al. discloses that the elements of the projection system are coaxial with its optical axis 34 (see col. 6, lines 31-34 and col. 10, lines 34-38), Jewell et al. does not discuss any relationship between the optical axis of the illumination system and the optical axis of the projection system. In addition, from Fig. 2, it appears that beam 21, which passes through the illumination system, is not coaxial with the optical axis 34 of the projection system. See also col. 10, lines 13-19.

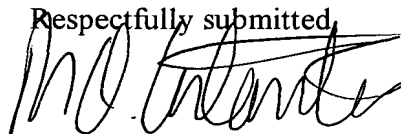
Accordingly, Applicant respectfully submits that Jewell et al. does not disclose or suggest the features of independent claims 62 and 84.

Withdrawal of the rejection based upon Jewell et al. is requested.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe anything further would be desirable to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number set forth below.

Respectfully submitted,



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MAC/ccs

Attachment:

Petition for Extension of Time

Date: July 28, 2003

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